USER MANUAL

MODEL NUMBER:
SP-WC
AND RELATED UNITS

Wall Mounted Concentrate Spray Unit

English (Original Instructions)

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

WARNING

Read this manual completely and understand the machine before operating or servicing it.

- Read all instructions before installing or operating unit.
- Always wear appropriate personal protective equipment (PPE) when operating or servicing unit.
- Always follow all chemical safety precautions and handling instructions provided by the chemical manufacturer and Material Safety Data Sheet (MSDS).
- If this unit is modified or serviced with parts not listed in this manual, the unit may not operate correctly.
- Never point the discharge wand at yourself, another person, or any object you do not want covered in chemical.
- Always depressurize unit after use (as described in the After Use Instructions). Always store unit depressurized, with the discharge valve in the closed position.
- Do not exceed an incoming air pressure of 100 psi (7 bar).
- Do not exceed a fluid temperature of 100˚F (37˚C).
- Always flush the unit with fresh water for 2-4 minutes when switching from an alkaline to an acid or an acid to an alkaline.
- Only use clean and dry air. Air must be filtered and free of moisture or pump life will be diminished. If needed, install an air dryer before unit.
- Do not use an air lubricator before the unit.
- Never use unit with hydrocarbons or flammable products.

PROTECT THE ENVIRONMENT
Please dispose of packaging materials, old machine components, and hazardous fluids in an environmentally safe way according to local waste disposal regulations.

Always remember to recycle.

*Specifications and parts are subject to change without notice.

OPTIONS:	
	Pump Seal Material
SP-WC	Santoprene (***standard***)
	Viton (**V**)
	Kalrez (**K**)

Add bold option codes to item number as shown. For standard options, no option code is needed.

Examples:

- SP-WC (standard unit with Santoprene pump seals)
- SP-WCV (unit with Viton pump seals)

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REQUIREMENTS	
Compressed air requirements	40-80 psi (3-5 bar) with 2 cfm (28.3 l/min)
Water requirements	10-100 psi (0.69-6.9 bar) Backflow prevention is required – consult local plumbing ordinances for more information
Liquid temperature range	40-100˚F (4.4-37˚C)
Chemical compatibility	Chemical products used with this equipment must be formulated for this type of application and compatible with unit materials and pump seals. For more information on chemical compatibility, consult the manufacturer or MSDS for your product or contact our customer service department.

SPECIFICATIONS	
Power type	Compressed air
Chemical pickup type	Draws from concentrated product
Dilution ratio range (water:chemical)*	34:1 to 640:1 with ST2520 fan tip; 24:1 to 640:1 with ST2550 fan tip
Number of products unit can draw from	One product
Suction line length/diameter	8 ft. (2.4 m) clear hose with 1/4 in. (6.4 mm) inside diameter
Discharge hose diameter/length	50 ft. (15 m) hose, with 1/2 in. (12.7 mm) inside diameter
Discharge wand/tip type	Polypropylene trigger handle with 25˚ fan tip
Output distance	10-12 ft. (3.0-3.7 m)
Output volume	2 gal/min (7.6 l/min) of liquid with ST2520 fan tip; 4-5 gal/min (15.1-18.9 gal/min) of liquid with ST2550 fan tip
Flow rate*	2 gal/min (7.6 l/min) with ST2520 fan tip; 4-5 gal/min (15.1-18.9 l/min) with ST2550 fan tip
Pump seals	Santoprene, Viton, or Kalrez

*Dilution rates and flow rates given are based on chemical with viscosity of water and factory air pressure settings.

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Installation Instructions:

1. Remove all components from packaging.
2. Select desired area to mount the control box.
   Note: We recommend mounting the control box at a height of 6 feet or less. The chemical suction lines must reach the bottom of the chemical container. The bottom of the chemical container should not be positioned higher than the bottom of the control box.
3. Attach the control box mounting feet to the back of the control box, using the four screws provided in the parts package.
4. Mount the control box to the wall using four of the screws and plastic anchors provided in the parts package. Note: To drill holes for the plastic anchors, use a 5/16 inch drill bit.
5. Mount the hose hanger in a convenient location using the remaining two screws and anchors provided in the parts package.
6. Attach the discharge hose assembly to the discharge hose barb (HBSS1212) and secure it with the larger hose clamp provided in the parts package.
7. Connect the air inlet hose barb (HBSS1438) provided in the parts package to the air inlet valve (BVB14) located on the side of the control box. Then attach a 3/8 inch I.D. air line from your air compressor to the air inlet hose barb, and secure it with the smaller hose clamp provided in the parts package.
8. Connect a water line to the water inlet fitting (SNB34GH). Note: A back-flow preventer must be installed in the water line – check local plumbing codes to ensure proper installation.
9. Insert the proper metering tips and connect the chemical intake lines to the inlet barbs. Note: Use the included metering tip color charts to determine the appropriate metering tip based on the product and dilution rate you will be using.
10. Place the other end of each chemical intake line into a chemical container.

METERING TIP COLOR CHART FOR SANITIZE FUNCTION

Metering tip color	WITH ST2520 FAN TIP		WITH ST2550 FAN TIP	
	Ounces of chemical per gallon of water*	Dilution ratio (water:chemical)*	Ounces of chemical per gallon of water*	Dilution ratio (water:chemical)*
Copper	0.20	640:1	0.20	640:1
Pumpkin	0.30	427:1	0.30	427:1
Burgundy	0.40	320:1	0.40	320:1
Lime	0.41	312:1	0.41	312:1
Tan	0.42	305:1	0.42	305:1
Orange	0.54	237:1	0.67	191:1
Turquoise	0.61	209:1	0.72	177:1
Pink	1.01	127:1	1.18	108:1
Light blue	1.28	106:1	1.42	90:1
Brown	1.35	95:1	1.52	84:1
Red	1.82	70:1	2.7	47:1
White	1.89	67:1	2.8	46:1
Green	2.09	61:1	3.0	43:1
Blue	2.70	47:1	3.31	38:1
Yellow	3.71	34:1	5.2	24:1
No tip	7.37	17:1	13.5	10:1

*Injection rates will vary based on chemical viscosity, air pressure, and many other factors. We recommend testing unit output to verify injection rate prior to use.

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Operation Instructions:

1. Follow all instructions from chemical manufacturer.
2. With the discharge valve (PSG12) in the closed position, open the air inlet valves(BVB14).
3. Point the spray discharge wand in a safe direction and open the discharge valve (PSG12) to begin spraying. The discharge valve (PSG12) should be completely open while spraying.
4. To stop spraying, close the discharge valve (PSG12).

After Use Instructions:

1. Place the chemical suction line into a container of water.
2. With the unit running, open the discharge valve (PSG12), and allow the unit to be flushed with fresh water for approximately 2-4 minutes or until all chemical has been discharged from the unit.
3. Shut off the air supply to the unit by closing the air inlet valve (BVB14).
4. Shut off the water supply to the unit.
5. Open the discharge valve (PSG12) to relieve any pressure remaining in the unit.
6. Close the discharge valve (PSG12) after all pressure has been relieved from the unit. Store the unit with the discharge valve (PSG12) in the closed position.

Maintenance Instructions:

To keep the unit operating properly, periodically perform the following maintenance procedures:
Note: Before performing any maintenance, disconnect the unit from the compressed air and water supply and depressurize it as described in the After Use Instructions.

- Inspect the pump (P56/P56K/P56V) for wear and leaks.
- Inspect all hoses for leaks or excessive wear. Make sure all hose clamps are in good condition and properly secured.
- Replace the filter located within the air regulator (R25) as needed. Clean by unthreading the air regulator bowl from the air regulator (R25).
- Check the chemical metering tips, intake lines and strainers for debris and clean as needed.
- Drain the air compressor tank on a regular basis to help extend pump life. An air source with a high moisture content will accelerate pump wear. Note: If the air source has a high moisture content, you may wish to install a water separator (WS-20CFM) before the unit.

Troubleshooting Instructions:

- Check to ensure that the discharge hose is uncoiled properly, and that there are no kinks that could obstruct fluid flow.
- Check the air regulator bowl and air filter for debris such as water, oil, or rust particles. Clean by unthreading the air regulator bowl from the air regulator (R25).
- If air passes through the pump (P56/P56K/P56V) without cycling, the pump needs to be replaced.
- Check for proper air pressure on the air gauge (AG100). The air regulator (R25) is factory set at 50 psi (3.4 bar). Operating range is 40-80 psi (3-5 bar) with 5-10 cfm (141.6-283.3 l/min).
- If the unit operates at a reduced pressure:
  - Check the air compressor supplying the unit. If the pressure is less than 40 psi (2.8 bar), turn the unit off until the compressor can catch up.
  - If the air supply is 50 psi (3.4 bar) or above, check the air gauge (AG100), which should read near 50 psi (3.4 bar). If the air gauge reads more or less than 50 psi (3.4 bar), adjust the pressure by turning the knob on the top of the air regulator (R25).
- Check the chemical metering tips, intake lines and strainers for debris or damage. Clean or replace as needed. To prevent damage to the unit, strainers must always be used.

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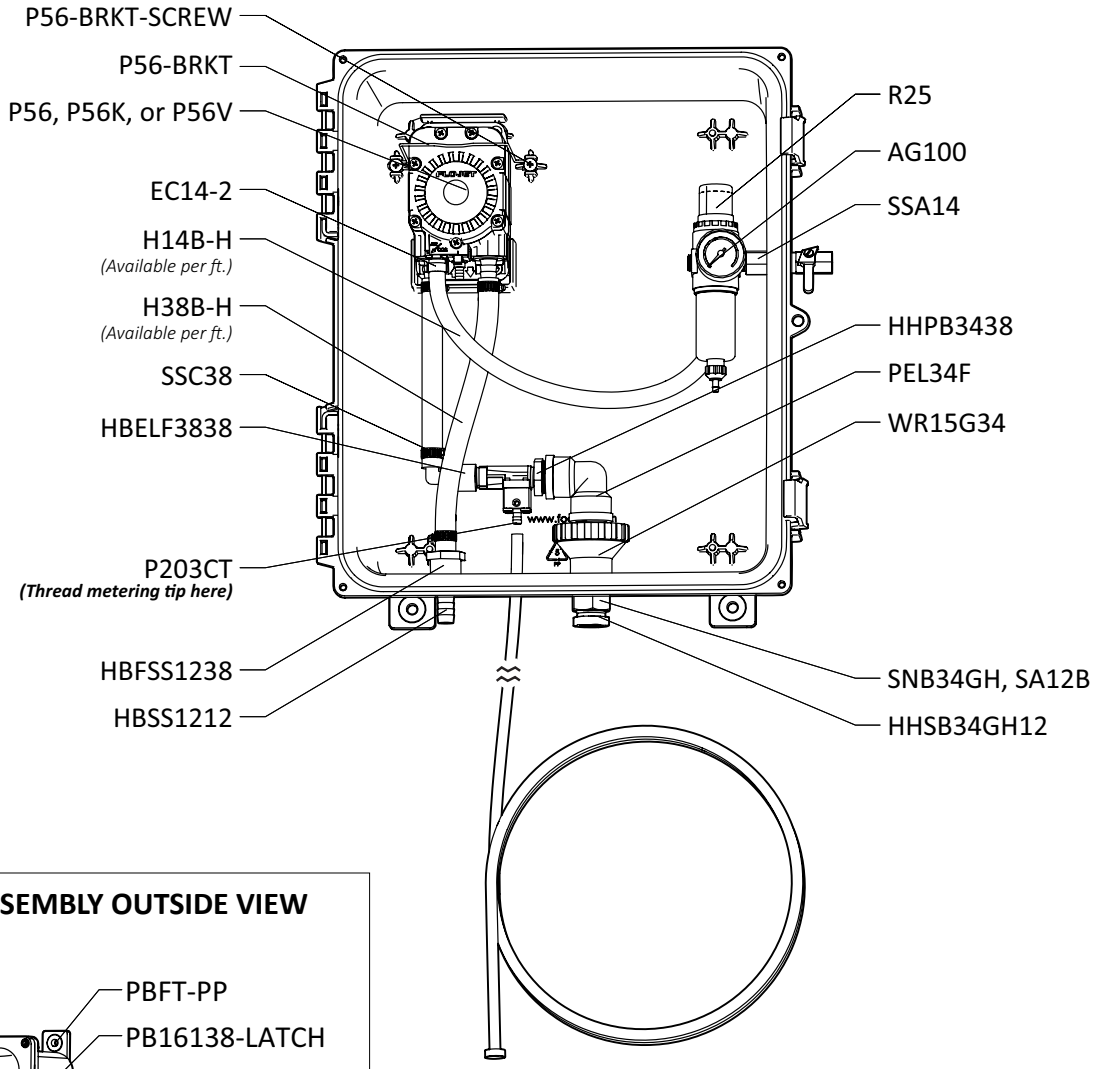
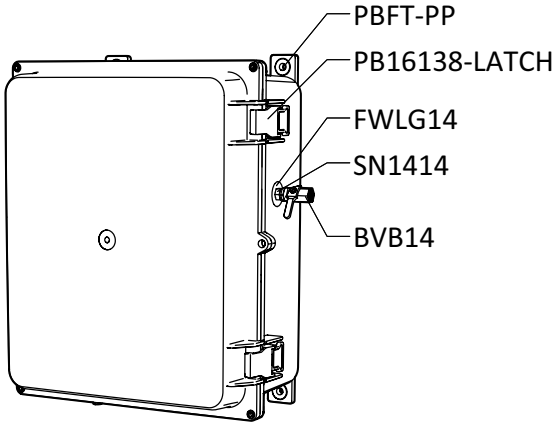
PARTS DIAGRAMS - UNITS WITH STANDARD FITTINGS

CONTROL BOX ASSEMBLY



CONTROL BOX ASSEMBLY OUTSIDE VIEW



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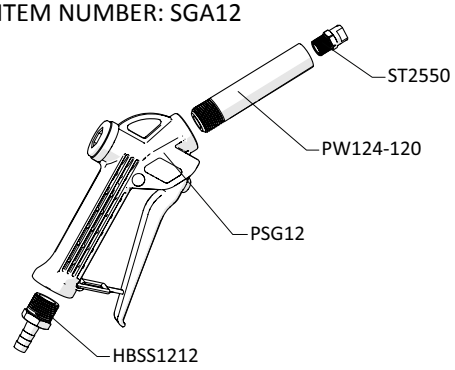
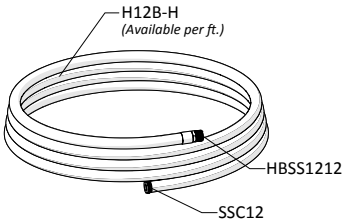
PARTS DIAGRAMS

HOSE AND WAND ASSEMBLY
ITEM NUMBER: SGA12-HA50

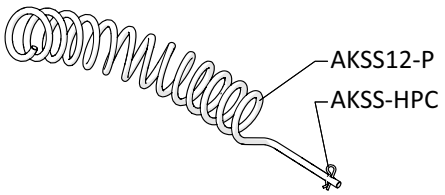
SPRAY GUN ASSEMBLY
ITEM NUMBER: SGA12



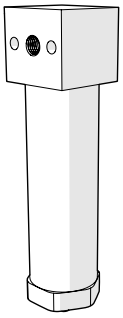
50 ft (15 m) HOSE ASSEMBLY
ITEM NUMBER: H12-50



ANTI-KINK SPRING ASSEMBLY
ITEM NUMBER: AKSS12



OPTIONAL COMPONENT
WATER SEPARATOR
ITEM NUMBER: WS-20CFM



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ITEM NUMBER	DESCRIPTION
AG100	1.5 INCH DRY MODEL 20 DUAL SCALE GAUGE
AKSS12-P	SS ANTI-KINK SPRING FOR 1.2 INCH HOSE
AKSS-HPC	ANTI-KINK STAINLESS STEEL HITCH PIN CLIP
BVB14	AIR INLET VALVE - VA BRS 025-4F4F-BT, NICKEL
DEMA-MTKUL	DEMA - METERING TIP KIT - ULTRA LEAN FOR P203CT
EC14-2	OETIKER CLAMP 13.8
F12SS	STAINLESS .875 ID FERRULE FOR 1/2 INCH HOSE
FWLG14	.569 ID X 1.28 OD X .08 THICK FLAT WASHER SS 18-8
FWP12	7/8 ID X 1.5 OD X 0.05 THK SSFW
FWP78	7/8in BY .137 BY 1 1/4in FLATWASHER 18-8 PLN
H14B-H	1/4 INCH BLUE GOODYEAR HORIZON HOSE - Available per ft.
H12B-H	1/2 INCH BLUE GOODYEAR HORIZON HOSE - Available per ft.
H38B-H	3/8 INCH BLUE GOODYEAR HORIZON HOSE - Available per ft.
HBELF3838	HOSE BARB ELBOW 3/8" BY FPT 3/8"
HBFSS1238	HOSE BARB 3/8 X FEMALE PIPE THREAD 1/2 IN STAINLESS STEEL
HBSS1212	STAINLESS HOSE BARB 1/2 X 1/2
HBSS1438	STAINLESS HOSE BARB 1/4 MPT X 3/8 INCH BARB
HBSSEL1814	304 STAINLESS ELBOW 1/8 INCH NPT X 1/4 INCH HOSE BARB
HHPB3438	HEX HEAD POLY REDUCER BUSHING 3/4in X 3/8in
HHSB34GH12	STAINLESS HEX HEAD BUSHING 3/4in MGH BY 1/2 FPT
P14	COUNTERSUNK PLUG-HEXAGON 1/4
P203CT	PLASTIC INJECTOR KIT INCLUDES INJECTOR - INTAKE HOSE - FOOT STRAINER AND WEIGHT - TIP KIT
P56	5700 PUMP WITH SANTOPRENE SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND AIR PORT
P56K	5700 PUMP WITH KALREZ SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND AIR PORT
P56V	5700 PUMP WITH VITON SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND AIR PORT
20756103B	Polypro G57 Air Port x HB Straight, w/ Viton o-ring
HB14P	1/4in BRASS HB AIR FITTING /G57/P56
HB5638	HOSE BARB FOR P56 PUMP
HB5638K	HOSE BARB FOR P56K PUMP
HB5638V	HOSE BARB FOR P56V PUMP
P56-BRKT	PUMP BRACKET- STAINLESS STEEL
P56-BRKT-SCREW	HI LO SCREW FOR RETAINING P56-BRKT
PB16138	POLYPROPYLENE CONTROL BOX - WORKING DIMS 16x13x8 - PUMP MOUNT
PB16138-GSKT	NEOPRENE GASKET 0.220 INCH ROUND CORD STOCK - 61.125 INCHES

ITEM NUMBER	DESCRIPTION
PB16138-LATCH	LATCH FOR PB16138
PB16138-PIN	STAINLESS STEEL HINGE PIN FOR CONTROL BOX PB16138 - 1/8 x 4 3/4 x 1/2inches
PBFT-PP	MOUNTING FEET FOR POLYBOX - PB16138 - POLYPROPYLENE
PEL34F	3/4in FEMALE POLY PIPE ELBOW 90
PL16138	CONTROL BOX LID - POLYPROPYLENE - 16x13x8 - HINGED LOCKABLE LID
PSG12	1/2 IN POLY SPRAY GUN WITH O-RING AND GRAY HANDLE & 316SS
PSGORV	PSG12 O RING
PW124-120	1/2in BLACK POLY PRO X 4in - SCH.120 - 1/2in MPTOE & 1/4in FPTOE
R25	AIR REGULATOR INCLUDES AIR FILTER AND BOWL
AFR25	AIR FILTER for R25
ABR25	METAL AIR BOWL for R25
S1034FHL	10 X 3/4 PHIL FLAT HI-LO THRD SCREW 18-8
SA12B	GARDEN HOSE SWIVEL ADAPTER X 1/2 MPT
SN1414	STAINLESS 1/4MPT X 1/4MPT NIPPLE
SNB34GH	BRASS 3/4 GH SWIVEL NUT
SSA12	STAINLESS MALE/FEMALE S.S. ADAPTOR 1/2in X 1/2in
SSA14	SS304 MALE/FEMALE ADAPTOR 1/4 NPT X 1/4 NPT
SSC12	WORM GEAR CLAMP, S/S (.31-.91)
SSC38	WORM GEAR CLAMP, S/S (.25-.63)
SSHH-F	S.S. LASER CUT HOSE HANGER - FLAT STOCK
ST2520	VEEJET NOZZLE - STAINLESS STEEL 2520
ST2550	VEEJET NOZZLE, S.S. 2550
STR34	1in SEAL/STRAINER FOR 3/4 GH FITTINGS
WMS14	14 X 1 1/4 HEX W/H SMS SLOTT, S/S
WMS14A	5/16 X 1 1/2 STRAIGHT PLASTIC ANCHOR
WR15G34	WATER PRESSURE REGULATOR - 3/4in FGH BY 3/4in MPT Body ABS, internal parts, SS, PP and Santo
WS-20CFM	TSUNAMI WATER SEPARATOR/AIR DRYER 20 CFM